ATTACHMENT 5:

Summary of Recent Parking Demand Studies

RECENT PARKING DEMAND STUDIES:

CITY OF SAN DIEGO MULTI-FAMILY RESIDENTIAL PARKING STUDY
(Prepared by Katz, Okitsu & Associates)

This study evaluates the feasibility of reducing parking requirements for affordable housing developments. It includes analysis of Census and Nationwide Personal Transportation Survey data, a survey of parking requirements in other jurisdictions, and a survey of parking demand at multi-family rental projects in San Diego.

The study concludes that parking reductions should be given to projects that meet specified transit and affordability requirements. The study recommends the following changes:

City of San Diego Parking Requirements (Existing / **Proposed**)

Multiple Dwelling Unit Type	***Basic*** *Space / Dwelling Unit*	***Near Transit*** *Space / Dwelling Unit*	***Affordable**** *Space / Dwelling Unit*
Studio < 400 s.q.	1.25	1.0	1.0 / **0.75**
1 bedroom or Studio > 400 s.q.	1.5	1.25	1.25 / **1.0**
2 bedrooms	2.0	1.75	1.75 / **1.25**
3-4 bedrooms	2.25	2.0	2.0 / **1.5**
5+ bedrooms	2.25	2.0	2.0 / **1.5**

Summary of Census and Nationwide Personal Transportation Survey data analysis:

- Vehicle ownership increases as household income increases (see Figure 1).
- Affordable projects require less parking than market-rate projects.
- Vehicle ownership decreases as density increases. This is also based on John Holtzclaw's published paper, "Location Efficiency," where he studied the relationship between auto ownership and residential density in Los Angeles, Chicago, and San Francisco. Holtzclaw concludes that auto ownership rates are strongly influenced by other factors such as household income, household size and accessibility to public transit. His study reveals that auto ownership rates decrease as density increases in all three metropolitan areas, including Los Angeles (see Figure 2).

Summary of Parking Demand Survey:

- Parking demand in market rate developments was greater than parking demand in affordable developments.
- Both affordable and market rate developments located within a ¼ mile of transit utilize less parking than similar projects located further than a ¼ mile from transit.

Summary of Parking Requirements for Affordable Projects in Other Cities:

Location	Parking Rates				
	Studio	1 bedrm	2 bedrm	3 bedrm	4+ bedrm
City of Anaheim: *Project Reductions*[1]					
Base parking rate	1.25	2	2.25	3	3.5
Min. reduced parking rates for affordable projects	.94	1.5	1.7	2.25	2.6
City of Escondido: *Project Reductions*[1]					
Base parking rate	1	1.5	1.75	2	2
Min. reduced parking rates for affordable projects	-	1	1.25	1.5	-
City of Seattle: *Base Rate Reductions*[2]					
Base parking rates based on number of units in projects	Sites with: 2-10 units: 1.1 per DU 11-30 units: 1.15 per DU 31-60 units: 1.15 per DU 31-60 units: 1.2 per DU > 60 units: 1.1 per DU				
Minimum very-low income parking rates in Center City neighborhood (near transit)	.33	.33	.33	5	-
Minimum low income parking rates in Center City neighborhood (near transit)	.5	.5	.5	1	-
Minimum low income parking rates outside Center City (not near transit)	.75	.75	.75	-	-
City of Santa Monica: *Base Rate Reductions*[2]					
Base parking rate	1	1.5	2	2	2
Min. reduced parking rates for affordable projects	-	1	1.5	1.5	1.5

[1]Project Reductions: these parking rates are part of an incentive menu designed to encourage the creation of affordable housing. These reductions are not part of the cities' official parking requirements and are reviewed on a case by case basis.

[2]Base Rate Reductions: these parking rates are a part of the off-street parking requirements defined in the zoning code. All qualifying affordable project are eligible for reduced parking rates. This does not mean, however, that all qualifying projects have to use the reduced parking rate. If no maximum parking rate is required, a developer can choose to provide more parking.

INCOME AND VEHICLE OWNERSHIP (UCBERKELY STUDY)
(dcrp.ced.Berkeley.edu/students/rrusso/parking/Developer%20manual/data.org)

This study examines the relationship between income and automobile ownership in the Bay Area. The study concludes that minimum parking requirements could be decreased for affordable multi-family residential developments.

The report uses Bay Area statistical data to illustrate the following:

- lower income households own fewer vehicles per household than median income households
- single family households on average own more cars than lower income households household size does not have a large impact on vehicle ownership
- renters, at equivalent incomes, own fewer vehicles than owners

EAST L.A. COMMUNITY CORPORATION / UCLA PARKING DEMAND STUDY (UNPUBLISHED)
(Provided by the East L.A. Community Corporation)

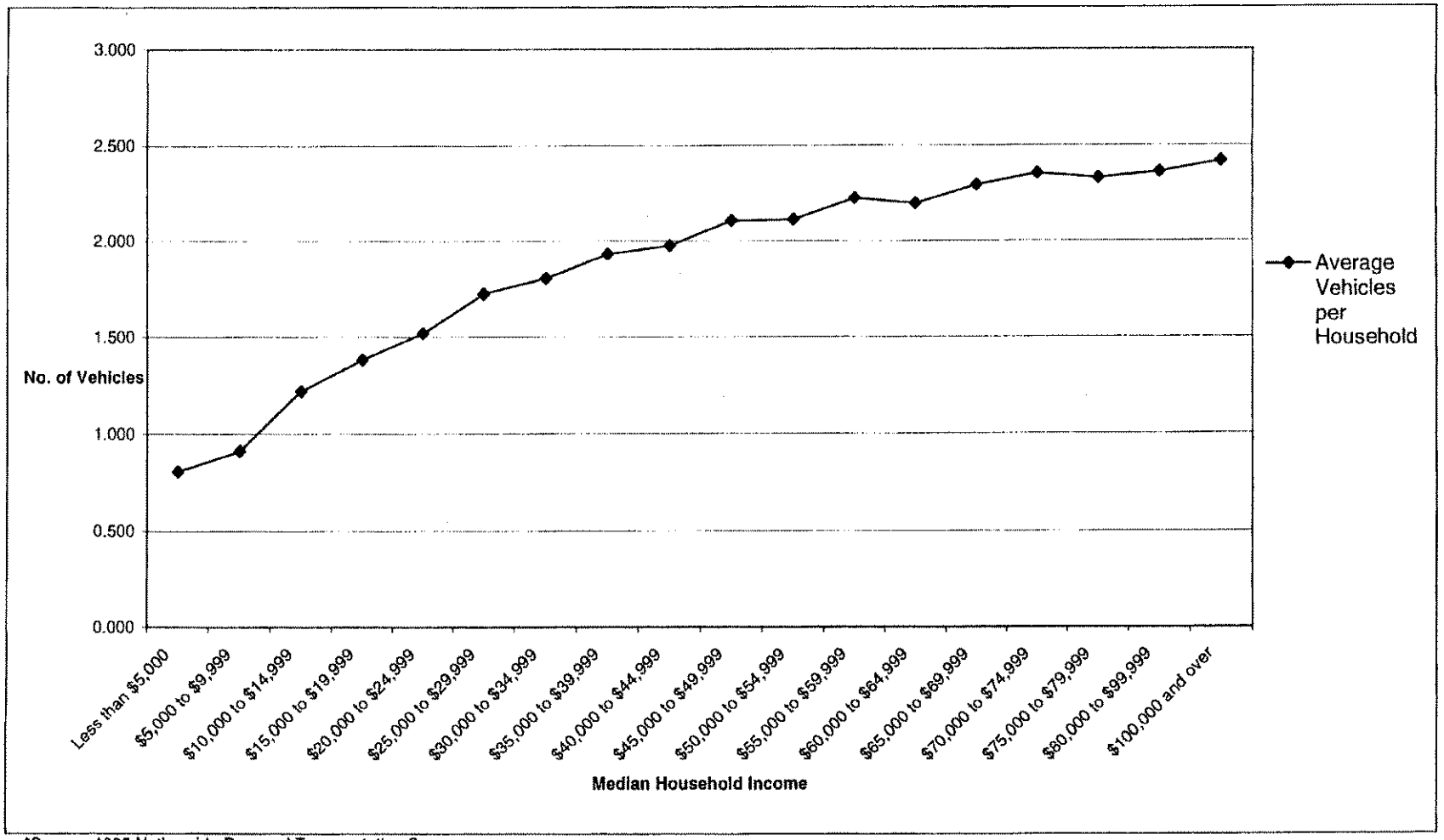
This survey look at parking demand (parking space / dwelling unit) at five rental affordable housing developments in East Los Angeles. The survey showed that the number of parking spaces actually utilized by the residents was less than the spaces provided. Refer to Table 1 for a summary of the data.

Table 1
AFFORDABLE HOUSING DEVELOPMENTS IN EAST LOS ANGELES

Housing Development	Parking Provided	Parking Occupied	Number of Units	Ratio of Space/Unit Required	Actual Space/Unit Used
Arizona & Olympic	35	21	17	2.06	1.24
Villa Nueva	40	16	20	2.00	0.80
Herbert Apartments	23	16	45	0.51	0.36
Kern Villa	98	57	49	2.00	1.16
Nueva Maravilla	524	230	500	1.05	0.29

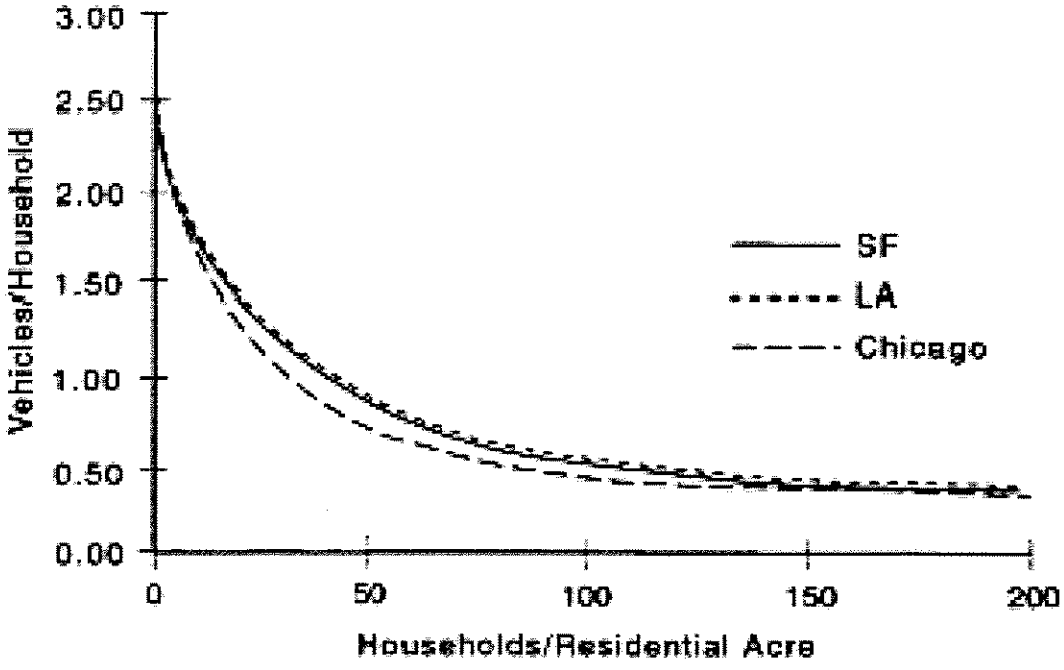
Source: East L.A. Community Corporation

Figure 1
Average Vehicles per Household by Income*



*Source, 1995 Nationwide Personal Transportation Survey

Figure 2
Auto Ownership Versus Residential Density



Source: "Location Efficiency"
City of San Diego *Multi-family Residential Parking Study*